REMARKS

Claims 1-26 will be pending upon entry of the present amendment. Claims 1, 2, 4, 10, and 14 are amended. New claims 24-26 are herein submitted.

Applicants thank the Examiner for indicating the allowability of claims 6, 13, 15, 16, and 23.

The Examiner has objected to claims 1, 2, 4, and 10 because of various informalities. These claims have been amended to correct the cited informalities. Additionally, claim 14 has been amended to correct a misspelling. None of these amendments affects the scope or meaning of the respective claim.

The Examiner has rejected claims 1-5, 7-12, 14, and 17-22 under 35 U.S.C. § 103(a) as being unpatentable over admitted prior art by Lemkin, M. et al. (Lemkin), in view of Poduje (US 3,986,109 (Poduje)).

Claim 1 recites, in part, "the maintaining step including feeding said common node with a compensating electric quantity."

The Examiner acknowledges that this limitation is not taught by Lemkin, but relies on Poduje for this teaching. However, Poduje, as well, fails to teach this limitation. Poduje teaches, in contrast, feeding an offset current directly to an amplifier (Figure 2 and column 4, lines 39-41). Figure 2 of Poduje shows a circuit employing a pair of capacitors in a configuration similar to that of prior art Figure 3 of the current application (although the respective circuits are functionally quite different), with capacitors 22, 24 having a common node connected to a power source 20. Rather than applying the offset current to this common node, the offset current is coupled directly from amplifier 88 to the amplifier 70. Nor is there any suggestion in either Lemkin or Poduje that some advantage might be gained by applying any compensating value to the common node. Accordingly, claim 1 is allowable over the cited prior art. Dependent claims 2-6 are also allowable with claim 1.

Claim 10 recites, in part, "feeding said common node with a compensating electric quantity, inversely proportional to said common detection rest capacitance."

A combination of Lemkin with Poduje fails to teach or suggest the above cited limitation of claim 10. Lemkin is silent on the issue of providing a compensating electric

quantity, while Poduje teaches the introduction of a current to an amplifier as a means for compensating for system errors. Neither reference teaches or suggests application of any electric quantity to a common node, as recited by claim 10. Accordingly, claim 10 is allowable over the cited prior art.

Claim 11 recites, "receiving said feedback voltage and feeding said common node with a compensating electric quantity."

Lemkin in combination with Poduje fails to teach or suggest all the limitations of claim 11, which is accordingly allowable thereover. Claims 12-16, as dependent claims on allowable claim 11, are also allowable.

Claim 17 recites, "introducing a compensating voltage, inversely proportionate to the common detection capacitance, to the common node of the sensor."

Lemkin, in combination with Poduje, fails to teach this limitation. Accordingly, claim 17, together with dependent claims 18 and 19, is allowable over the cited prior art.

Claim 20 recites, in part, "A device, comprising ... a second circuit, configured to supply a compensation voltage to the common node." Lemkin, in combination with Poduje, fails to teach all the limitations of claim 20. Accordingly, claim 20, together with dependent claims 21-23, is allowable over the cited prior art.

New claims 24-26 are herein submitted, comprising previously unclaimed subject matter. New claim 24 is reproduced, in its entirety, herebelow:

24. (New) A method for operating an electro-mechanical sensor in a detection circuit, comprising:

detecting a change in capacitance of first and second detection capacitors formed between a movable mass of the sensor and a fixed body of the sensor;

providing, during the detecting step, an output value proportionate to a capacitive unbalance between the first and second detection capacitors;

storing, during the detecting step, a value corresponding to a common detection capacitance of the sensor; and

compensating, in the detection circuit, and during the detecting step, for changes in the common detection capacitance.

Neither Lemkin nor Poduje, either singly or in combination, teaches or suggests the limitations of claim 24. In particular, Lemkin fails to teach storing a value corresponding to a common detection capacitance of the sensor, and compensating for changes in the common detection capacitance. For its part, Poduje teaches a compensating circuit, but fails to teach storing a value corresponding to a common detection capacitance.

As explained in the background section of the present application, and in particular in the paragraph beginning on page 5, line 21, one cause of changes in common detection capacitance is movements of a movable mass in axes other than an axis to be measured. Poduje's device does not employ a movable mass, nor does Poduje indicate any other possible source of changes in the common detection capacitance of the probe. Furthermore, Poduje's method would be ineffective in correcting for such variations in Lemkin's device, since the variations tend to occur during the measuring process, while Poduje teaches performing a calibrating step separate from a measuring step.

Poduje's compensation method is configured to compensate for "changes in the environmental conditions and changes in the operating parameters of the internal electronic circuitry of the probe" (column 2, lines 26-28). Poduje does not offer any teaching regarding effects of changes in common detection capacitance, nor of the desirability of compensating for such changes. Thus, there is no motivation in either Lemkin or Poduje to combine the references for the purpose of compensating for common detection capacitance.

In addition, Poduje teaches a method in which a known reference value is used to calibrate the device, whereafter the device is used to perform dimension measurements (column 1, lines 34-48). Accordingly, the art cited by the Examiner fails to teach a method in which the capturing step, the compensating step, and the providing an output value step are each performed during the same detecting step, teaching, rather, a method in which a calibration step is performed separate from a measurement step. Thus, claim 24 is allowable over the cited prior art. Dependent claims 25 and 26 are also allowable thereover.

Claim 25 is allowable on its own merits, apart from its allowability as a dependent claim depending from allowable claim 24. Claim 25 recites "introducing to the detection circuit a compensation value, inversely proportionate to the common detection capacitance of the sensor."

Neither Lemkin or Poduje offer any teaching regarding the effects of the common detection capacitance on the accuracy of the sensor, accordingly there is no teaching to provide a compensation value that is associated with the common detection capacitance. Accordingly, claim 25 is allowable over the cited prior art.

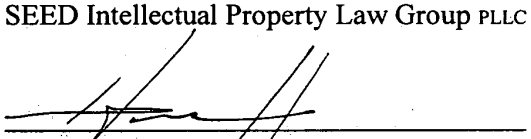
All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,

Ernesto Lasalandra et al.

SEED Intellectual Property Law Group PLLC



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